SEQUENCE LISTING

<110> Dongbu Hannong Chemical Co., Ltd.

<120> The usage of MADS-box genes in fruit & seed development by regulationg active gibberelin synthesis

<130> 4FPO-12-13

<150> KR10-2004-6551

<151> 2004-02-02

<150> KR10-2004-10432

<151> 2004-02-17

<160> 24

<170> KopatentIn 1.71

<210> 1

<211> 1065

<212> DNA

<213> Malus domestica

<220>

<221> gene

<222> (1)..(1065)

<223> Malus domestica mRNA for C-type MADS-box protein(MdMADS14)

<400> 1

acccacttcc cacttctgca attcttcctt ccggttgcca agtgcaaccc caaaagaaaa 60

actcaaagtc aagaactaac agaaagagcc acaattcatc tattttgagg ggtttttgcc 120

atttttcatc cttgtaacaa tggagttcgc aaatcaagca cctgagagct ctacccaaaa 180

aaaattggga agaggcaaaa ttgagattaa gcggatcgaa aacactacca atcgacaagt 240

caccttctgc aaacgccgca acggattgct taagaaagcc tatgaattgt ctgttctttg 300

tgatgctgaa gttgctctta tcgtcttctc cacccgtggc cgcctctatg agtatgctaa 360

caacagcgtt agagcaacaa tcgacaggta caaaaaagca tgcgctgatt ctacggacgg 420

tggatctgta tcagaagcta acactcagtt ttatcagcag gaagcatcaa aactgcgaag 480

acagatccga gaaattcaga attcaaacag gcatatactg ggggaatccc ttagcacctt 540

gaaagtcaag gaactgaaaa acctagaagg aagattggag aaaggaatca gcagaataag 600

atccaaaaag aatgaaatcc tgttttctga aatcgaattc atgcaaaaga gggagactga 660

gctgcaacac cacaacaatt ttctgagagc aaagatagct gaaagcgaga gggaacagca 720

gcagcagcaa acacatatga ttccgggaac ttcctacgat ccgtcgatgc cttcgaattc 780

gtatgacagg aacttcttcc ctgtgatctt ggagtccaat aataaccatt accctcgcca 840

aggccagaca gctctccaac ttgtttgaaa tgctggactg ccgtctgatg ttcttctatc 900

catatcctct gatctgtctt cataaatcta tgagataatt gacgttgtag tttttatgta 960

tatgggagaa ccagtttgct catgttctcc ataatatata tatgtgtgat gatggacccc 1020

aattctgtga taacatatat agtaaatttt attttctcac cccga 1065

<210> 2

<211> 876

<212> DNA

<213> Malus domestica

<220>

<221> gene

<222> (1)..(876)

<223> Malus x domestica AGAMOUS-like protein mRNA, complete cds(MdMADS16)

<400> 2

gcaattcttc cttcccgttg ccaagtgcaa ccccaataga aaaactcaaa gtcaagaact 60

agctaacaga gaaaaccaca attcatcaat ttggaggggt ttttgccatt tttcatcctt 120

gcaacaatgg agttcccaaa tcaagcaccc gagagctcct cccagaaaaa attgggaagg 180

ggcaaaattg agattaagcg gatcgaaaac actacaaatc gacaagttac cttctgcaaa 240

cgccgcaacg gattgcttaa gaaagcctat gaattgtctg ttctttgtga tgctgaagtt 300

gctcttatcg tgttctccaa ccgtggccgc ctctatgagt atgctaacaa cagtgttaga 360

gcaacaatcg acaggtacaa aaaagcatac gctgatccta cgaacagtgg atctgtttca 420

gaagccaaca ctcagtttta tcagcaggaa gcatccaaac tgcgaagaca gatccgagaa 480

attcagaatt caaacaggca tatactgggt gaagctctta gctccttgaa cgccaaggaa 540

ctgaagaacc tagaaggaag attggagaaa ggaatcagca gaataagatc caaaaagaat 600

gaaatgctgt tttctgaaat cgaattcatg caaaaaaggg agaccgagct gcaacaccac 660

aacaattttc tgagagcaaa gatagctgaa aacgagaggg aagagcagca gcatacacac 720

atgatgccgg gaacttccta cgatcagtca atgccttcgc attcttatga caggaacttc 780

ctcccagcgg tgatcttgga gtccaacaat aaccattacc ctcaccaagt ccagacagct 840

ctccaacttg tttgaaatgc tggactgccg tctgat 876

<210> 3

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> first forward degenerate primer

<220>

<221> misc_feature

<222> (1)..(20)

<223> 6th, 12th, 15th nucleotide 'n' represent inosine

<400> 3

aaycgncarg tnacnttytg 20

<210> 4

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> first reverse degenerate primer

<220>

<221> misc_feature

<222> (1)..(19)

<223> 3th, 12th and 15th nucleotide 'n' represent inosine

<400> 4

tcngcgatyt tnshnckna 19

<210> 5

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> second forward degenerate primer

<220>

<221> misc_feature

<222> (1)..(20)

<223> 9th and 18th nucleotide 'n' represent inosine

<400> 5

aaraargcnt aygarytntc 20

<210> 6

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> third forward primer

<400> 6

tctagaacta gtggatcccc cgggctgcag gaattc 36

<210> 7

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> third reverse primer

<400> 7

atccactgtt cgtaggatca gcgtatg 27

<210> 8

<211> 28

<212> DNA

<213> Artificial Sequence

<220>

<223> forth forward primer

<400> 8

ggctgcagga attcggcact aggcaatt 28

<210> 9

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> forth reverse primer

<400> 9

gcaagcttat cagacggcag tccagc 26

<210> 10

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> MdMADS14 forward primer

<400> 10

gggaacagca gcagcagcaa a 21

<210> 11

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> MdMADS14 reverse primer

<400> 11

ctccaagatc acagggaaga a 21

<210> 12

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> MdMADS16 forward primer

<400> 12
tgaaaacgag agggaagagc a 21

<210> 13
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> MdMADS16 reverse primer

<400> 13
caagatcacc gctgggagga a 21

<210> 14
<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> ACTIN forward primer

<400> 14

cgatggccaa gtcatcacaa t 21

<210> 15

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> ACTIN reverse primer

<400> 15

tctcatgaat gccagcagct t 21

<210> 16

<211> 249

<212> DNA

<213> Artificial Sequence

<220>

<223> hybridization probe

<400> 16

atgcaaaaaa gggagaccga gctgcaacac cacaacaatt ttctgagagc aaagatagct 60

gaaaacgaga gggaagagca gcagcataca cacatgatgc cgggaacttc ctacgatcag 120

tcaatgcctt cgcattctta tgacaggaac ttcctcccag cggtgatctt ggagtccaac 180

aataaccatt accctcacca agtccagaca gctctccaac ttgtttgaaa tgctggactg 240

ccgtctgat 249

<210> 17

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> npt II forward primer

<400> 17

gaggctattc ggctatgact g 21

<210> 18

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> npt II reverse primer

<400> 18

atcgggagcg gcgataccgt a 21

<210> 19

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> MdMADS forward primer

<400> 19

gaattcaaac aggcatatac tggg 21

<210> 20

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> MdMADS reverse primer

<400> 20

gacggatcgt aggaagttcc c 21

<210> 21

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> RIN forward primer

<400> 21

tggtacactt gaaggaaccc a 21

<210> 22

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> RIN reverse primer

<400> 22

catgtgttga tggtgctgca 20

<210> 23

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Le20ox-1 forward primer

<400> 23

cccaacaagc atctgagc 18

<210> 24

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Le20ox-1 reverse primer

<400> 24

ttcctaaggc gagctccg 18